

Unit 2

Day 1

Roots and Radicals

Pre-1.7 Worksheet instruction

1)

$$\sqrt{72}$$

$$\sqrt{3^2 \cdot 2^3}$$

$$3 \cdot 2 \sqrt{2}$$

$$6\sqrt{2}$$

$$2) \sqrt{104} = \sqrt{2^3 \cdot 13} = 2 \sqrt{2 \cdot 13}$$

$$\begin{array}{r} \diagup \diagdown \\ 2 \quad 52 \end{array}$$

$$\begin{array}{r} \diagup \diagdown \\ 2 \quad 26 \end{array}$$

$$\begin{array}{r} \diagup \diagdown \\ 2 \quad 13 \end{array}$$

$$2 \sqrt{26}$$

3)

$$\sqrt{-128} \quad \text{NR}$$

4)

$$\sqrt[3]{64} = \sqrt[3]{2^6} = 2^2$$

$$= 4$$

$$\begin{array}{r} 64 \\ \swarrow \searrow \\ 2 \quad 32 \\ \swarrow \searrow \\ 2 \quad 16 \\ \swarrow \searrow \\ 2 \quad 8 \\ \swarrow \searrow \\ 2 \quad 4 \quad 2 \end{array}$$

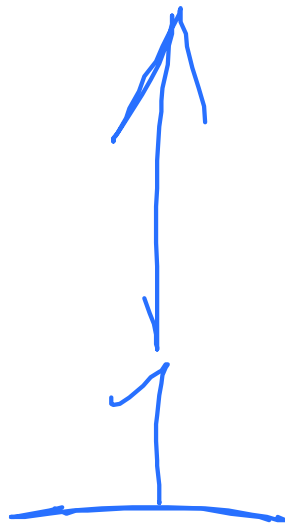
$$8^2$$

5)

$$\sqrt[3]{x^6} = x^2$$

6)

$$\frac{5}{\sqrt{7}} \cdot \frac{\sqrt{7}}{\sqrt{7}} = \frac{5\sqrt{7}}{\sqrt{(7)^2}} = \frac{5\sqrt{7}}{7}$$



7)

$$\frac{7}{\sqrt[5]{125}} \cdot \frac{\sqrt[5]{5^2}}{\sqrt[5]{5^2}} = \frac{\sqrt[5]{25}}{\sqrt[5]{(5)^5}} = \frac{\sqrt[5]{25}}{5}$$

5³

↑

1

Do know and finish for homework

3 Worksheets (2 simplifying, and 1 Rationalizing)